NOTIFIER® by Honeywell

Standby Battery Calculation
NFW2-100 Fire Alarm Control Panel

Protected Premises: Tree of Knowledge Daycare Center **Date:** 10/30/2018

Address: 622 Buffalo Lake Road

City: Sanford **State:** NC **Zip:** 27332

Prepared By: Patterson Group Services **Phone:** (919) 776-2403

City: Sanford **State:** NC

Panel ID: FACP **Location:** Main Lobby

System Device	Qty	Standby Current Draw		Alarm Current Draw	
		Draw	Standby	Draw	Alarm
NFW2-100 Main Circuit Board	1	0.145000	0.145000	0.275000	0.275000
SLE-CDMA-FIRE	1	0.071000	0.071000	0.200000	0.200000
FDU-80	1	0.06400	0.064000	0.064000	0.064000
NP-100	11	0.00030	0.003300	0.00650	0.071500
NH-100R	1	0.00030	0.000300	0.00650	0.006500
NMM-100P	1	0.00035	0.000350	0.00060	0.000600
NOT-BG12LX	5	0.00038	0.001875	0.00500	0.025000
PC2RL15	1	0.00000	0.00000	0.07100	0.07100
PC2RL30	2	0.00000	0.00000	0.09000	0.18000
SCRL15	14	0.00000	0.00000	0.04100	0.57400
SCRL30	1	0.00000	0.00000	0.06300	0.06300
SCRL75	1	0.00000	0.00000	0.11100	0.11100
		Total Standby:	**0.286**	**Total Alarm:**	**1.642**

Secondary Load Requirements 8.40 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw (Amps)		Time (Hours)	Total (AH)
Secondary Standby Load		Required Standby Time	
0.286		24	6.86
Secondary Alarm Load		Required Alarm Time	
1.642		0.084	0.14
		Total Secondary Load	7.00
		Derating Factor	1.2
		Secondary Load Requirements	**8.40**

Battery Selection 12 Amp Hours

Point to Point Voltage Drop Analysis
NFW2-100 Fire Alarm Control Panel
Point to Point Voltage Drop Analysis

Project Name: Tree of Knowledge Daycare
Date: 10/30/2018
Circuit No: N1
Minimum Voltage: 16
Area Covered: Ground Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	PC2RL15	0.071	30	30	20.32
2	SCRL15	0.041	30	60	20.24
3	SCRL15	0.041	15	75	20.21
4	SCRL15	0.041	20	95	20.18
5	SCRL15	0.041	30	125	20.13
6	SCRL15	0.041	20	145	20.10
7	SCRL15	0.041	30	175	20.07
8	PC2RL30	0.090	30	205	20.04
9	SCRL15	0.041	25	230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
END				230	20.04
	Total Power:	**0.448**	**% Voltage Drop:**		**-1.78%**

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NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.

Point to Point Voltage Drop Analysis
NFW2-100 Fire Alarm Control Panel
Point to Point Voltage Drop Analysis

Project Name: Tree of Knowledge Daycare
Date: 10/30/2018
Circuit No: N2
Minimum Voltage: 16
Area Covered: Ground Floor
Wire Gauge: 14
Ohm's per 1,000 ft.: 3.14

Device Number	Part Number	Current (amps)	Distance (Feet)		Voltage at Device
			Between	Total	
1	SCRL15	0.041	30	30	20.30
2	PC2RL30	0.090	25	55	20.22
3	SCRL15	0.041	25	80	20.15
4	SCRL15	0.041	20	100	20.10
5	SCRL15	0.041	35	135	20.03
6	SCRL75	0.111	30	165	19.97
7	SCRL15	0.041	30	195	19.94
8	SCRL30	0.063	15	210	19.92
9	SCRL15	0.041	30	240	19.91
10	SCRL15	0.041	15	255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
END				255	19.90
	Total Power:	**0.551**	**% Voltage Drop:**		**-2.43%**

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NOTE: Wire resistance is doubled in the calculations for two wires. The voltage shown at the last device must not be lower than the manufacturer's listed minimum voltage.